

Abstract

Electromechanical brake with self-boosting and varying wedge angle

5

An electromechanical brake has an electrical actuator which generates an actuation force and acts on at least one friction member in order to press said member to elicit a friction force against a rotational component, which is to be braked, of the brake. A self-boosting device is arranged between the friction member and the electrical actuator, said device serving to self-boost the actuation force generated by the electrical actuator, and having at least one wedge (12), which has a wedge surface (14) arranged at a wedge angle α and supported on a corresponding counter bearing (16). When the brake is actuated, the electrical actuator displaces the wedge (12) relative to the counter bearing (16) in an actuation direction (x) to press the friction component against the component, which is to be braked, of the brake. To achieve a high degree of self-boosting and short actuation paths, the wedge angle α is constant on a first segment (18) of the wedge surface (14), which is effective at the start of brake actuation, and is smaller on a second segment (20) which follows the first segment (18) than on the first segment (18).

20

(Fig. 1)